ABSTRACT

Background: The quality in technical educational institutions is degrading successively, However on the other side the number of technical institutions is growing staggering. Yearly 1.5 million engineers are passing out from Indian university but only 20% of engineering graduates are employable (Fine, 2012). According to an industry body, National Association of Software and Services Companies (NASSCOM), following a 2011 survey, said only 17.5 % engineering graduates were employable. “Mass-Produced Engineers from Private Colleges with No Quality Are of No Use to”. (E.Shreedharan, 2011).

According to Aspiring Minds National Employability report, which is based on a study of 1,50,000 engineering students who graduated in 2015 from over 650 colleges, only 20% of them are employable. "Engineering has become the de-facto graduate degree for a large chunk of students today. However, along with improving the education standards, it is quintessential that we evolve our undergraduate programs to make them more jobs centric” (Agrawal, 2016).

E Balaji, the former CEO of manpower consulting firm Randstad says, “Several engineering graduates end up working as sales executives and other non-technical jobs, so there is no link between what they studied and what they do” (Mahajan, 2014).

The academic year 2014-15 approved intake for engineering course was 19,01,501 (AICTE, 2016-2017). The question arises whether the entire intake was filled; the statistics shows that more than 8 lakh seats remained vacant in 2014-2015 in country. (Chatterjee, 2016)

In Maharashtra state the conditions are same, according to the data presented by State Higher and Technical Education Minister during the winter session (2015) in the State Legislature, the state has around 367 engineering colleges with 1,56,067 seats out of which, in academic year (2014-2015),
88,883 seats were filled up and 67,184 (more than 40 %) remained vacant (Ghokale, 2015). In the academic year 2015-2016, number of applications for state engineering colleges were 1,07,147 and the intake capacity of the state for the year is 1,58,157 with 375 engineering colleges out of that 367 are private and 8 are government engineering colleges. This shows that for the year 2015-2016 the vacant seats are 51,010 (Ghokale, 2015).

The figures mentioned above show the lack of quality factors in technical education system in country and in state. So there is a dearth in studies done on Quality Management (QM) and Human Resource Management (HRM) practices used in technical educational institutions.

Lack of brand recall, poor reputation, dearth of job opportunities, appalling lack of standards and inexperienced faculty are the major reasons attributed for the indifference from the students towards engineering education (Peter, 2015).

Hence, one of the core assets of any organization is its manpower, for institutions it is their faculty and the product is their student. So, there is a need to assess the quality and human resource management factor by the perception of student and faculty point of view. No study focuses the grassroots level factors of institutions like student perception and faculty perception towards Quality Assessment (QA) and Human Resource Management practices done within institutions. There is a need to study the view of grassroots factors which restrict the institutions to produce quality of engineers or technocrats.

**Objectives and Purposes**: Against this scenario, present study attempts to find whether there are any barriers to implement Total Quality Management and effective Human Resource Management (HRM) practices in technical (Engineering) educational institutions in perception of the grassroots factors of institutions (i.e. Faculty and Students). Many researchers from different fields have conducted many studies to identify the barriers which constrain the quality in technical education system. However, many of these studies mainly
focus on the educational policies. Further in India very few studies are available and very limited from Maharashtra. Present study adds to fill this gap in the literature. This leads to in-depth analysis and understanding of the TQM and HRM practices in technical (Engineering) educational institutions in student and faculty perception. The study offers concrete suggestions that can be implemented at National, State, Institutional and Individual level.

**Design/Methodology/Research Approach:** Research design adopted for this study is Descriptive Cross Sectional design. It is descriptive in nature because it attempts to describe the current situation of technical educational institutions in regional context. The study has been conducted in eleven technical (Engineering) educational institutions from Latur, Parbhani, Hingoli and Nanded which come under Swami Ramanand Teerth Marathwada (SRTM) University, Nanded Jurisdiction.

Field survey collection was done with the help of structured questionnaire which is divided into two categories, that is total quality management approach and human resource management approach. And this questionnaire is further categorized for faculty and student. This questionnaire consist close ended questions, to be marked on five point Likert Scale.

During the field work the faculty and students were interviewed to get an perception towards total quality management process and human resource management practices adopted by their respective technical (Engineering) institutions.

Literature survey covered a systematic review of research papers, journals (National, International), magazines, books, government reports, official websites, and conferences.

The sample frame for the study included faculty and students. 550 respondents were chosen from the selected institutions. 200 faculty working at various designations (Lecturer, Professor and Junior Lecturer) and 350 students
from various streams (Computer, Mechanical, Civil, Electrical, E&TC and other) have participated in the study.

The hypothesis was formulated with the objective to know student and faculty perception towards TQM process and HRM practices adopted in their respective technical (Engineering) educational institutions. The study brings out the importance of strategic human resource management practices and systematic approach to implement total quality management practices within technical (Engineering) educational institutions in regional context.

**Findings:**

Analysis of data was carried out by conducting ANOVA (Analysis of Variance) and descriptive statistics test. The research findings and conclusion is categorized on the basis of the perception of student and faculty.

**Originality and Contribution:** The study has significantly contributed in the area of technical education which is said to be the backbone of country through adoption of innovative and comprehensive research methodology. The study has enriched the research in two ways. Firstly, it has widened the perspective of the study by including grassroots level factors (student and faculty) of institutions. It is essential to understand the viewpoint of student and faculty towards total quality management and human resource management factor of institutions. Secondly, the most important contribution of the study is that it has added link which was missing in the literature review. There are various studies available in developed countries which explore the subject and developed theories specifically suitable for developed regions. However, very few studies talk about India and applicability of these theories in Indian context. The present study has contributed in this area by exploring these theories in depth and applicability of these theories in regional context.